

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL A. KAPP,
FLOYD JONES,
TOM DONNELLY,
DAVID A. ELLIS,
DAVID M. ALLGEIER, and
ROBERT L. PROTHEROE

Appeal No. 95-3991
Application 08/233,546¹

ON BRIEF

Before THOMAS, JERRY SMITH, and BARRETT, Administrative Patent Judges.

¹ Application for patent filed April 26, 1994.
According to appellants, the application is a continuation of
Application 07/930,964, filed August 17, 1992.

Appeal No. 95-3991
Application 08/233,546

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 21, 23 and 33-37, which constitute all the claims remaining in the application.

The disclosed invention pertains to a method and apparatus for enhancing security with respect to identification of a user of a business terminal. Specifically, the invention considers three different security measures. First, the invention alters the keyboard configuration on a touch-screen display to make finger pattern movement irrelevant to an observer. Second, the invention alters the location of the keyboard on a touch-screen display to make surreptitious copying more difficult. Finally, the disclosed invention checks a signature input by the user as a form of identification in addition to the standard personal identification number.

Representative claim 21 is reproduced as follows:

21. A process for enhancing security with respect to identification of a user of a business terminal in a system, comprising the following steps:

(a) providing a combined touch screen and display on which a chosen one of a plurality of keyboard configurations may be displayed in a chosen location on the display, with certain areas of the display representing different keyboard values at different times in accordance with the particular keyboard configuration chosen;

(b) providing a particular keyboard configuration in a chosen location on the display;

(c) entering personal identification data into the combined touch screen and display by contacting selected areas of the configuration on the combined touch screen and display on which data representations appear;

(d) providing an area for entry of a user signature on the screen;

(e) entering a user signature on the combined touch screen and display; and

(f) verifying the identity of the user of the business terminal by comparison of the personal identification data and the signature with corresponding data contained in the system.

The examiner relies on the following references:

Hirsch	4,479,112	Oct. 23, 1984
Dunkley et al. (Dunkley)	4,752,965	June 21, 1988
Thrower	4,857,914	Aug. 15, 1989
Cairns	4,962,530	Oct. 09, 1990
Winn et al. (Winn)	4,970,655	Nov. 13, 1990

Appeal No. 95-3991
Application 08/233,546

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 21, 23 and 33-37. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

Appeal No. 95-3991
Application 08/233,546

In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

1. The rejection of claim 21.

The examiner asserts that Winn teaches the steps of claim 21 except for the handwriting entry, the touch screen and the signature verification. The examiner cites Sklarew for teaching that handwriting entry on a touch screen is an art-recognized alternative to keyboard entry. The examiner cites Dunkley for teaching signature verification for security purposes [answer, pages 5-6]. In the examiner's view, all the steps of claim 21 are suggested by these three references, and the only issue is whether it would have been obvious to combine the references within the meaning of 35 U.S.C. § 103 [answer, pages 6-7].

Appellants argue that the references relied upon, whether taken separately or in combination, do not show or suggest the step of providing a chosen one of a plurality of keyboard configurations as recited in step (a) of claim 21, or the entering of personal identification data and a user signature on the touch screen as recited in steps (c) and (e) of claim 21 [brief, pages 21-22].

Although we can agree with the examiner that the broad recitations of entering personal identification data and a user signature on a touch screen would have been suggested to the artisan by the applied prior art, we agree with appellants that none of the applied prior art suggests the step of providing a chosen one of a plurality of keyboard configurations on the touch screen display. The preferred embodiment of Winn uses a conventional, fixed keyboard 20. Although Winn suggests that a touch screen could replace the keyboard [column 6, lines 58-62], Winn would suggest nothing more than that the fixed mechanical keyboard could be a fixed touch screen keyboard. None of the art applied by the examiner has any suggestion of a changing keyboard configuration wherein the display represents different keyboard values at different times.

Since the examiner has not identified how the applied prior art teaches step (a) of claim 21, and since we can find no basis in the applied prior art for the obviousness of step (a) of claim 21, we conclude that the examiner has failed to establish a prima facie case for the obviousness of claim 21.

Therefore, we do not sustain the rejection of claim 21 based on the prior art applied by the examiner.

2. The rejection of claim 23.

Claim 23 depends from claim 21 and adds the step of selecting a particular one of the plurality of keyboard configurations to over-ride the keyboard configuration provided by the system in response to data read by a card reader. Since claim 23 depends from claim 21, the prior art teachings of Winn, Sklarew and Dunkley also do not suggest the invention of claim 23. However, the examiner has added the teachings of Thrower and Hirsch in support of the rejection of claim 23. Thrower and Hirsch each teaches the concept of varying the appearance of a keyboard display to enhance the security of data input. In our view, the additional teachings of Thrower and Hirsch would have suggested to the artisan the obviousness of broadly changing keyboard configurations on a touch screen display. The examiner also cites the general art of automated teller machines (ATMs) as an example of using a personal card to enter data into a business terminal. Finally, the examiner also asserts that the configuration of

an ATM is user-specified such as when making the multiple language selection [answer, pages 8-10].

Appellants argue that "the examiner has failed to cite as a reference any ATM machine which employs the process recited in claim 21 or in which data is entered from a user's personal card by use of a reader to **select a particular one of a plurality of available keyboard configurations to over-ride the keyboard configuration provided by the system**, as recited in claim 23" [brief, page 26].

We find ourselves in agreement with appellants. The examiner's reliance on the supposed operation of generic ATM systems is unsupported by the prior art relied on in the rejection. It is also clear that a user-selected input in any of the machines of the applied prior art does not result in the over-ride of a keyboard configuration. The applied prior art teaches either the automatic changing of a keyboard configuration (Thrower and Hirsch) or a keyboard configuration which does not change at all (Winn). The examiner's contention that the applied prior art suggests the claimed over-ride of a keyboard configuration simply is not supported

by the prior art applied against claim 23. Therefore, we do not sustain the examiner's rejection of claim 23 based on the prior art applied by the examiner.

3. The rejection of claims 33 and 34.

The examiner notes that claim 33 is parallel to claim 21 except that instead of dealing with a plurality of keyboard configurations, claim 33 deals with a plurality of different locations on different portions of the display, and claim 33 recites a "depiction" of the keyboard [answer, pages 10-11]. The examiner asserts that the different locations on different portions of the display would have been obvious in view of the applied prior art. The examiner also cites Windows as an example of moving a keyboard during entry of information. The examiner cites Cairns for teaching the changing of a keyboard depiction [answer, page 11].

Appellants argue that the "references relied upon are believed to be lacking in a showing or suggestion of a capability of moving a keyboard configuration depiction to different locations on a combined touch screen and display" [brief, page 28]. We agree with appellants' assessment. We

fail to see how the broad teaching of an ability to move a window in the Windows operating environment would have suggested the claimed step of moving the location of a keyboard depiction on the touch screen of a business terminal. The examiner has not applied any prior art which relates to the claimed security feature of selecting one of a plurality of different locations on a touch screen for displaying a depiction of a keyboard. We do not sustain the rejection of claim 33 based on the applied references.

Claim 34 depends from claim 33 and is rejected on the same combination of references. Therefore, the rejection of claim 33 clearly cannot be sustained. We note for the record, however, that the examiner now argues that Thrower teaches the changing of keyboard locations as recited in the claim [answer, page 24]. We view Thrower as teaching the relocation of keys within the keyboard area, but not the relocation of the keyboard itself. Specifically, Thrower teaches "scrolling" the character-to-key assignments to make it impractical for an observer to interpret the inputted information. Thrower states that "[b]y 'scrolling' the array

of assigned characters is meant a stepwise shifting of the lines of characters within the array in any coordinate direction thereof" [column 2, lines 19-21]. We view this passage as teaching that the keyboard array does not change locations, but only the key assignments are scrolled. Thus, Thrower does not suggest the changing of the location of the depiction of the keyboard configuration from one location to another as recited in claim 34.

4. The rejection of claim 35.

The examiner basically relies on the arguments made against claim 34 as supporting the rejection of claim 35 [answer, pages 14-15]. For purposes of our consideration, it is sufficient to note that claim 35 recites a processing means "capable of displaying any one of a plurality of selected keyboard configurations in any one of a plurality of different locations on different portions of the display." For reasons discussed above with respect to the rejection of claims 33 and 34, this concept of changing the location of the keyboard on the display is not suggested by any of the prior art

references applied by the examiner. Accordingly, we do not sustain the rejection of claim 35.

5. The rejection of claim 36.

Claim 36 has a recitation substantially the same as the recitation quoted from claim 35 above. None of the applied prior art teaches this feature for reasons discussed above. Therefore, we do not sustain the rejection of claim 36.

6. The rejection of claim 37.

Claim 37 is broader in many respects than the other independent claims, but claim 37 recites the step of overriding the provided keyboard configuration with a configuration selected by the user in response to data read from a personal card. All the arguments made by the examiner in support of the rejection of claim 37 have been considered in our discussion above. Appellants argue that "[n]owhere in any of the references has there been found a showing or a suggestion of the concept of employing data from a user's

Appeal No. 95-3991
Application 08/233,546

personal card entered by a card reader to over-ride a provided keyboard configuration and replace it with a configuration selected by the user" [brief, page 34].

For reasons discussed above with respect to claim 23, we agree with appellants that the over-ride feature of claim 37 is not suggested by any of the applied references. Therefore, we do not sustain the rejection of claim 37.

In summary, we have not sustained any of the examiner's rejections of the claims based on the prior art applied by the examiner. Accordingly, the decision of the examiner rejecting claims 21, 23 and 33-37 is reversed.

REVERSED

JAMES D. THOMAS)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
JERRY SMITH)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	

Appeal No. 95-3991
Application 08/233,546

)
)
LEE E. BARRETT)
Administrative Patent Judge)

Douglas S. Foote
AT&T Global Information Solutions Company
Law Department
Intellectual Property Section
1700 S. Patterson Blvd., ECD-2
Dayton, Ohio 45479-0001